Notice of Allowability	Application No.	Applicant(s)	
	10/620,803	REEVES ET AL.	
	Examiner	Art Unit	
	Scott Christensen	2444	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *1/13/2009*.

2. ☒ The allowed claim(s) is/are *1,2,4,5,8,10-13,15,17-26,28 and 30-34*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *20090330* .
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

/William C. Vaughn, Jr./
Supervisory Patent Examiner, Art Unit 2444

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Brian Tucker on 3/24/2009.

The application has been amended as follows:

1. (Currently Amended) In a computing environment, a method comprising:

requesting access points for accessing distributed services that match specified criteria, the access points being requested from a service registry;

in response to the request; receiving a plurality of access points to a plurality of distributed services, each of the plurality of distributed services matching the specified criteria, the access points being received from the service registry;

maintaining the plurality of access points in a cache, wherein the plurality of access points are maintained in an ordering;

receiving a request from a program to provide an access point;

in response to the request, selecting a first access point from the cache based on the ordering and returning data of the first access point to the program, the first access point for accessing a first distributed service;

wherein the program ~~using~~ uses the data from the first access point to access the first distributed service; and

~~upon~~ receiving information from the program that the first distributed service which is accessed using the first access point has failed~~.~~;

based on the received information that the first distributed service which is accessed using the first access point has failed:

selecting a second access point from the cache, the second access point for accessing a second distributed service, ~~and~~

returning data of the second access point to the program, and

marking the data from the first access point which is used to access the failed distributed service such that the first access point is not subsequently selected from the cache;

wherein the data from the first access point and the data of the second access point comprises a network address of a computer system, wherein the network address can be resolved by some mechanism to an application or a particular instance of an application.

2. (Previously Presented) The method of claim 1 wherein the program provides the specified criteria.

3. (Canceled)

4. (Original) The method of claim 2 wherein the service registry comprises a UDDI-based registry, and wherein sending the query to the service registry comprises sending an UDDI find request.

5. (Previously Presented) The method of claim 4 wherein the plurality of access points is provided by the service registry in a list of URLs, and wherein returning data of an access point comprises returning data comprising a URL.

6. (Cancelled)

7. (Cancelled)

8. (Original) The method of claim 1 wherein receiving a request from a program for an access point comprises receiving a call at a defined interface.

9. (Cancelled)

10. (Original) The method of claim 9 further comprising, basing the ordering on data received from the program.

11. (Original) The method of claim 9 further comprising, basing the ordering on quality of service data.

12. (Original) The method of claim 9 wherein choosing the access point based on the ordering comprises choosing the access point that is first in the ordering of those access points that have not been marked as having failed.

13. (Original) The method of claim 9 wherein choosing the access point based on the ordering comprises choosing the access point that is next in the ordering.

14. (Canceled)

15. (Previously Presented) The method of claim 1 further comprising updating the service registry based on the failure data.

16. (Canceled)

17. (Previously Presented) The method of claim 1 wherein outputting failure data comprises communicating with an error handling service.

18. (Original) The method of claim 17 further comprising collecting failure information at the error handling service.

19. (Previously Presented) The method of claim 1 wherein receiving information that a distributed service has failed comprises receiving a call at a defined interface.

20. (Previously Presented) A computer-readable storage medium having stored computer- executable instructions for performing the method of claim 1.

21. (Currently Amended) In a computer network in which a service registry provides access points to distributed services for use by client programs, a system comprising:

a storage media that maintains a plurality of access points provided by the service registry; and

a manager component coupled to the client program, the manager component configured to perform the following:

receive a request from the client program for access points for accessing distributed services that match specified criteria, the request including the specified criteria;

in response to the request from the client program, request access points from the service registry, the access points for accessing distributed services that match the specified criteria;

receive from the service registry data corresponding to a plurality of access points to a plurality of distributed services, each of the plurality of distributed services matching the specified criteria;

store the data corresponding to the plurality of access points in the storage, wherein the data corresponding to the plurality of access points are stored in an ordering;

receive a request for one of the plurality of stored access points from the client program;

in response to the request, select a first access point from the storage based on the ordering and provide the data corresponding to the first access point to the client program, the first access point for accessing a first distributed service;

receive information from the client program that the first distributed service which is accessed using the first access point has failed; and

based on the received information that the first distributed service which is accessed using the first access point has failed: ~~in response to the information,~~

select a second access point from the storage, ~~and~~

provide the data corresponding to the second access point to the client program, the second access point for accessing a second distributed service, and

mark the data corresponding to the first access point as having failed such that the first access point is not subsequently provided in response to a request for an access point

wherein the data from the first access point and the data of the second access point comprises a network address of a computer system, wherein the network address can be resolved by some mechanism to an application or a particular instance of an application.

22. (Original) The system of claim 21 wherein the manager component comprises an instantiated object.

23. (Original) The system of claim 22 wherein the storage comprises a list maintained in storage allocated to the manager component object.

24. (Original) The system of claim 21 wherein the client program hosts the manager component.

25. (Original) The system of claim 21 wherein the manager component is coupled to the client program via a defined interface that receives the request for the access point.

26. (Original) The system of claim 21 wherein the service registry comprises a UDDI-based registry.

27. (Canceled)

28. (Original) The system of claim 27 wherein the service registry comprises a UDDI-based registry, wherein the query comprises a UDDI find request, and wherein each access point received in response to the query comprises a URL string.

29. (Canceled)

30. (Previously Presented) The system of claim 21 wherein the selection of the first and second access points is based on an ordering scheme.

31. (Original) The system of claim 21 wherein the manager component includes a defined interface for receiving failure-related calls related to a distributed service.

32. (Original) The system of claim 31 wherein at least one failure-related call includes information that indicates the failure.

33. (Original) The system of claim 31 further comprising an error handling service, the manager component providing failure information to the error handling service including information that indicates which service failed.

34. (Original) The system of claim 33 wherein the error handling service collects the failure information, and updates data associated with the service registry and corresponding to the service that failed.

Reasons for Allowance

2. The following is an examiner's statement of reasons for allowance:

3. The closest prior art of record, US 7,249,100 to Murto et al. discloses a system where a mobile phone accesses a UDDI registry, where the system facilitates the formation of a query to the UDDI registry. The server of Murto may be utilized to cache files and other information that is accessed (Murto: Abstract).

However, Murto does not disclose expressly the caching, exactly as performed in claim 1. For example, Murto does not disclose that the cached access point is marked as having failed, which prevents the failed access point from being selected again from the cache, and that a second access point is selected based on the ordering of the access point.

In US 2004/0213409, Nielson discloses a system where after three failures, a URL is marked as pending, and no further attempts are made at accessing the URL for a certain time interval (Nielsen: Column 17, lines 10-21). However, Nielson does not fairly teach or suggest the functionality of selecting another URL to access based on an ordering of the URL. Further, the URLs are not equivalent to the term "access points," as in the instant application, as the term "access points," as in the instant application,

refers to the access information for accessing distributed services, such as Web Services (Specification: Page 1, Lines 22-23).

Accordingly, Nielson cannot be fairly combined with Murto to arrive at the invention in as much detail as is claimed in the instant claims. Further, no other prior art of record can be fairly utilized to cure the deficiencies of Murto with respect to the instant claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Christensen whose telephone number is (571)270-1144. The examiner can normally be reached on Monday through Thursday 6:30AM - 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. C./
Examiner, Art Unit 2444

/William C. Vaughn, Jr./

Supervisory Patent Examiner, Art Unit 2444